

Remarks

I. The Amendments

The specification and claims of the application was amended by entering a sequence listing and sequence identification numbers. The changes that were made are shown in the attached appendix.

II. Submission of Computer Readable Copy of Sequence Listing

Applicants are including herewith a 3.5 inch computer readable diskette which contains a copy of the newly submitted Sequence Listing in ASCII text.

III. Statements to Comply With 37 C.F.R. § 1.821 and 1.825

In compliance with 37 C.F.R. § 1.821(f), Applicants' undersigned attorney hereby states that the content of the paper and computer readable copies of the Sequence Listing submitted herewith are the same. In accordance with 37 C.F.R. § 1.821(g), Applicants' undersigned attorney hereby states that the submission herewith does not add new matter to the application.

Conclusion

In light of the present amendments and enclosures, Applicants respectfully submit that all Sequence Listing requirements have now been complied with. It is therefore respectfully submitted that this application is now in condition for substantive review.

If, in the opinion of the Examiner, a phone call may help to expedite the prosecution of this application, the Examiner is invited to call Applicants' undersigned attorney at (703) 905-2173.

Respectfully submitted,

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Appendix

Version with Markings to Show Changes Made

The specification of the application was amended to enter sequence identification numbers. The changes that were made are shown below with the underlined words indicating text that was added.

On page 3, lines 22-26 were amended as follows:

Accordingly the invention relates to an AFP which can be derived from Lichen, said AFP having an apparent molecular weight of about 24 kDa and an amino acid sequence from the N-terminus of:
A-P-A-W-M-D-A-E-S-F-G-A-I-A-H-G-G-L (SEQ ID NO:1).

On page 4, lines 18-24 were amended as follows:

For example the (partial) amino acid sequence from the N-terminus of: A-P-A-V-V-M-G-D-A-E-S-F-G-A-I-A-H-G-G-L (SEQ ID NO:2), can be aligned with the control as follows:
A-P-A-V-V-M-G-D-A-E-S-F-G-A-I-A-H-G-G-L (SEQ ID NO:2)
A-P-A-W-M-D-A-E-S-F-G-A-I-A-H-G-G-L (SEQ ID NO:1).

On page 5, lines 1-4 were amended as follows:

The protein having (partial) amino acid sequence from the N-terminus of:
A-P-A-V-V-M-G-D-A-E-S-F-G-A-I-A-H-G-G-L (SEQ ID NO:2) is hence also embraced within the invention.

Please amend page 14, line 30 – page 15, line 4 to read as follows:

Following purification of further protein using essentially the same methodology as described above, the following N-terminal amino acid sequence was obtained from the 24 kDa polypeptide:
A-P-A-V-V-M-G-D-A-E-S-F-G-A-I-A-H-G-G-L (SEQ ID NO:2).

Claims 1 and 2 were amended as follows:

1. (Once amended) Anti-freeze protein which can be derived from Lichen, said protein having an apparent molecular weight of from 20 to 28 kDa and having an N-terminal amino acid sequence which shows at least 80% overlap with: A-P-A-W-M-D-A-E-S-F-G-A-I-A-H-G-G-L (SEQ ID NO:1) and modified versions and isoforms of this protein.
2. (Once amended) Anti-freeze protein of claim 1 having an N-terminal amino acid sequence as follows: A-P-A-V-V-M-G-D-A-E-S-F-G-A-I-A-H-G-G-L (SEQ ID NO:2) and modified versions and isoforms of this protein.